STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 99-DIST-GEN(2)
	)	
Exploring Revisions to Current	)	SITING COMMITTEE ORDER
Interconnection Rules Between	)	RE: DISTRIBUTED
Investor-Owned and Publicly-owned	)	GENERATION INTER-
Utility Distribution Companies	)	CONNECTION RULES
And Distributed Generators	)	
	)	
Evaluating CEQA Procedures for	)	
Siting Distributed Generation	)	
Facilities	)	
	)	

SUMMARY

This order establishes the basic framework by which the California Energy Commission (Commission) will develop recommended interconnection rules affecting distributed generators and investor-owned utilities. We expect to submit a formal recommendation to the California Public Utilities Commission (CPUC) in June 2000.

Two working groups will begin the process of developing formal recommendations to the CPUC with respect to interconnection rules. A technical working group will develop the specific characteristics required by distributed generators to connect to the utility systems. The non-technical working group will investigate implementation and policy-related issues surrounding the interconnection rules developed in this proceeding.

The groups are directed to hold a kickoff meeting during the first week of January to initiate the process, establish the ground rules for working group activity, and identify specific topic areas to address. The working groups will be open to all parties wishing to actively participate. A staff workshop will be held in mid-February to evaluate the progress of the working groups and determine the need for schedule modification. Assuming progress is proceeding on schedule, the working groups will present their recommendations to Commission staff in late March. Commission staff will issue a workshop report in April. The Siting Committee (Committee) will

subsequently hold a hearing in April to address the report. Draft recommendations will be released by the Siting Committee in May with a request for comments from interested parties. Following consideration of public comment, the Committee will schedule Commission consideration and adoption of the Committee's recommendations at a business meeting in June.

BACKGROUND

On November 3, 1999, the Commission opened this investigation to identify barriers to the development of distributed generation technologies by utility interconnection rules and air quality management district rules for some distributed generation technologies. The investigation supports a companion rulemaking opened by the CPUC in October 1999 (R.99-10-025). The Commission is leading the effort to explore potential revisions to the current interconnection rules. The Committee has been delegated the task of developing these recommendations for consideration by the full Commission in June 2000.

The Committee, consisting of Commissioner Robert Laurie and Vice Chairman David Rohy, held a workshop on December 6, 1999 to begin the process of developing rules that address connecting distributed generation facilities to the distribution grid. The goal of the workshop was to serve as the initial meeting for the interconnection rules development portion expected to feed into the CPUC proceeding on distributed generation and distribution competition (R.99-10-025). The Committee sought to bring parties up to a common starting point, discuss organizational efforts to initiate a working group process, and identify any aspects for which consensus on major issues exist. More than 100 people attended the workshop, representing a wide range of interests with respect to distributed generation and distribution competition. After hearing several presentations about the current state of interconnection rules, hearing comments from the public, and reading the comments of several interested parties, the Committee hereby establishes the following ground rules for developing interconnection rules.

PROCEDURE

The Committee agrees with participants in the workshop that a working group process is the most efficient option for developing proposals for interconnection rules. Recognizing that most parties are time constrained to fully participate in a working group process, the Committee is committed to minimizing the number of working groups. This Order establishes two working groups to assist with the development of the Commission's recommendation to the CPUC:

- Technical Working Group – will develop the specific characteristics required by generators to connect to the utility systems. Distinctions between different distributed generation technologies are encouraged so long as the characteristics are standard across all utility service territories, including municipalities and irrigation districts, if possible.

Topic areas to address in the Technical Working Group should include but not be limited to: standards classification criteria, appropriate time for disconnecting automatic disconnect switches, type testing, metering and communication requirements.

- Non-Technical Working Group – will investigate issues addressing the implementation of rules developed in this proceeding, including representative agreements, an implementation schedule for the CPUC and the utilities, and an interconnection schedule for distributed generators and utilities. It will also address policy issues such as how the interconnection rules ultimately selected by the CPUC might apply to entities not subject to CPUC jurisdiction. Topic areas to address in the Non-Technical Working Group should include but not be limited to: the development of standard agreements between utilities and distributed generators, consumer education and outreach, the role of municipalities and irrigation districts in development of interconnection and compliance, standards enforcement, and dispute resolution.

Membership is voluntary and open to all parties. It should also reflect the various stakeholder interests: utilities, manufacturers, vendors, and consumers. Consultants can vote only if representing a particular entity. The working groups will coordinate their activities by periodically meeting together, or having representatives of each group discuss their progress.

The Committee establishes the following rules for participation and voting which generally follow the approach used by the Permanent Standards Working Group (PSWG) in the CPUC's direct access proceedings:[1]

1. The work of the groups shall be facilitated by Commission staff and/or consultants hired by the Commission.
2. A quorum consists of a minimum of 50 percent of the total qualified voting members.
3. Meeting attendees may speak to the group only when recognized by the facilitator. Side discussions will not be allowed. Sarcasm is not permitted and subject to censure.
4. Final recommendations to the Commission will be decided by a two-thirds vote of the qualified voting membership. The final report will include a list of everyone who voted and any submitted minority reports.
5. There will be a single vote for each entity.
6. To maintain voting membership, an entity must have representatives at two of the last

1 The PSWG was charged with developing standards for Metering and Meter Data used in direct access. The final report was submitted to the CPUC by the group in July 1998 (CPUC Docket R.94-04-031 and I.94-04-032).

three meetings. The three meetings will include the current or most recent meeting.

7. To accommodate parties' desires, a majority of parties in attendance is required to approve modification of meeting dates and locations, or other minor issues.

8. A two-thirds voting majority is required to change procedures or voting rules.

9. A minimum of five calendar days is required for meeting notifications, which include meeting location, meeting dates, and how to contact the host. Notification will consist of either posting the meeting announcement to the Commission web page, mailing a notice to parties on the service list, or sending a notice by electronic mail.

10. When voting, the qualified members may vote "Yes," "No," or "Abstain." Providing comments by reason is optional. A written minority report or reasons for any vote may be included with the majority report.

11. When calculating the two-thirds majority vote, abstain votes will not be included.

While placing great weight on the formal recommendations of the working groups, the Committee and ultimately the Commission is not bound by their conclusions and recommendations. **ALL PARTIES MUST CLEARLY UNDERSTAND THAT THE WORKING GROUPS ARE DESIGNED TO PROVIDE ADVICE AND RECOMMENDATIONS. ALL FINAL DECISIONS WILL BE MADE BY THE COMMISSION.**

APPROPRIATE STARTING POINT FOR WORKING GROUPS

One of the suggestions made at the workshop was the development of a "strawman" proposal to serve as a starting point for developing a package of proposed interconnection rules. Several parties suggested beginning with work already done in Texas and New York, as well as work started in California by CADER and PG&E. Commission staff was asked to investigate this issue on behalf of the Committee. Based on that investigation, the Committee offers the following observations about whether those forums provide an appropriate starting point for the working groups.

- New York – Interconnection standards development dealt extensively with type testing of systems smaller than 300 kW. The standards apply to both static inverters and rotating type generators. Standards developed in this proceeding could use the 300 kW as a starting point and potentially expand type-testing to include larger systems if so desired.

- Texas – Interconnection rules were adopted by the Texas Public Utility Commission on December 1, 1999. The rules focused primarily on the process. Section 25.211 of the PUC of Texas Substantive Rules is the section on procedures. It begins with a definition

of various terms used, discusses tariff and costs of interconnection studies, and contains an application process and an interconnection agreement. It also addresses pre-certification of equipment and process issues such as time for interconnection studies, communications between parties, and reporting requirements. It also considers the contracting process, timing, and dispute resolution. Section 25.212 outlines the technical requirements for interconnection and parallel operation of on-site distributed generation. It explains the general interconnection and protection requirements, identifies interference issues and their remedies for systems in various size categories. Both sections are clearly not exhaustive but set the general tone for further development.

- California – Interconnection activity in the state focused around the actions of CADER and PG&E. CADER held one meeting in February 1999 to address technical interconnection issues. The meeting involved protection engineers from the three investor-owned utilities and produced a matrix categorizing hardware-related issues by four different technology sizes. The matrix serves as a good start for identifying hardware issues that need further discussion in this process. CADER did not address procedural issues.

  Some distributed generation equipment vendors, consultants and organizations interested in distributed generation attended PG&E's three interconnection workshops. The workshop addressed issues such as interconnection flow process, cost matrix, contracts, and vendor issues, interconnection studies and situations where studies should be conducted. Applicability of IEEE 929, and UL 1741 were discussed. Basically, the workshop participants addressed several technical issues but did not reach any agreement.

The Committee believes that any strawman proposal should be based on the work of all four entities. Texas has clearly done the most on process-related issues. New York and Texas have some information that can help with respect to the basics on process and some technical issues integral to the DG rulemaking. The CADER work offers a technical starting point specific to California but little information on process.

The technical working group shall begin its work by reviewing the products from Texas, New York, CADER, and PG&E. The group shall also review the progress of IEEE and attempt to maintain consistency with those proposed standards. This group shall determine the scope of technologies considered by these standards and the size range. The non-technical working group shall review the standard contracts used in New York and Texas as a starting point for discussion. For implementation issues, the group should review the Texas rules.

The Committee wants to provide the working groups with the flexibility to develop a proposal in a manner that best suits the group participants. However, it is important that we see progress being made on a proposal. As such, we direct that a strawman proposal be developed by both

working groups in advance of a staff workshop to be held in mid-February. The strawman proposal should also be submitted to the Committee and served on all parties on the current service list five days prior to the workshop.

GUIDING PRINCIPLES

The Committee believes it is critical to identify the underlying goals of distributed generation to appropriately focus the work in this proceeding. We provide great weight on developing rules that promote consumer choice while protecting the reliability of the distribution system. We are not interested in compromising the ability of end-use customers, especially residential and commercial customers, in the interest of promoting distributed generation technologies for the benefit of the larger industrial and electric generation customers. We believe the following principles should guide the work of the working groups:

- Rules, protocols, and processes should be clear and transparent.
- Rules should be technology neutral, except where differential requirements can be fully justified by safety or other legitimate concerns.
- A level playing field should be established for all distributed generation providers.
- Rules should be uniform throughout California, and nationwide if possible.
- Utility distribution companies should be fairly compensated for distribution services that support distributed generation installations and customers.

SCHEDULE

Each working group is directed to hold an initial meeting during the first week of January. The non-technical working group will meet on January 4th with the technical working group meeting on January 5th. Agendas for both meetings will be posted on the Commission's website by the end of December. Both meetings will be located at the Energy Commission in Hearing Room B. We encourage subsequent meetings to be held both in Sacramento and at other locations throughout the state. PG&E, SCE, and SDG&E representatives have indicated a willingness to reserve conference room space at their locations; we encourage others to do the same to the extent possible.

A staff workshop will be held in mid-February to evaluate the progress of the working groups and determine the need for schedule modification. Assuming progress is proceeding on schedule, the working groups will present their recommendations to the Commission in late March. Commission staff will issue a workshop report in April. The Committee will also hold a hearing

in April to address the workshop report. The Committee will subsequently release draft recommendations in May with a request for public comment. Following consideration of public comment, the Committee will schedule Commission consideration and adoption of the Committee's recommendations at a business meeting in June.

DATED: December 16, 1999

ROBERT A. LAURIE
Commissioner and Presiding Member
Energy Facility Siting Committee

DAVID A. ROHY
Vice Chairman and Associate Member
Energy Facility Siting Committee